IN THE CLAIMS:

1. (Currently Amended) A method for selecting a coprocessor from a plurality of coprocessors to process a packet ~~of a predetermined size~~, the method comprising the steps of:

determining the size of the packet;

determining a cost associated with the packet of that size, the cost representing a load associated with processing the packet;

determining an anticipated load for each coprocessor in the plurality of coprocessors using the cost; and

selecting the coprocessor from the plurality of coprocessors based on the anticipated load.

2. (Original) The method of claim 1 wherein the step of determining a cost further comprising the step of:

calculating the cost using a rate associated with processing the packet.

3. (Original) The method of claim 2 wherein the rate is stored in a lookup table.

4. (Original) The method of claim 2 wherein the step of calculating the cost further comprising the step of:

dividing the packet's size by the rate.

5. (Original) The method of claim 2 wherein the step of calculating the cost further comprising the step of:

multiplying the packet's size by a multiplicative inverse of the rate.

6. (Original) The method of claim 1 wherein the step of determining a cost further comprising the step of:

applying the packet's size to a lookup table containing one or more cost values to determine the cost.

7. (Original) The method of claim 1 wherein the step of determining an anticipated load further comprising the step of:

adding the cost to a cumulative load associated with each coprocessor in the plurality of coprocessors.

8. (Original) The method of claim 1 wherein the step of selecting the coprocessor further comprising the step of:

selecting the coprocessor from a group of one or more coprocessors whose anticipated load is a minimum load.

9. (Original) The method of claim 8 wherein the coprocessor is selected using a scheduling algorithm.

10. (Original) The method of claim 1 wherein the step of selecting the coprocessor further comprising the step of:

determining if a port associated with the packet is congested.

11. (Original) The method of claim 10 wherein the step of selecting the coprocessor further comprising the step of:

selecting the coprocessor from a group of one or more coprocessors whose anticipated load is not a minimum load.

12. (Original) The method of claim 10 wherein the step of selecting the coprocessor further comprising the step of:

selecting the coprocessor from a group of one or more coprocessors whose anticipated load is a minimum load.

13. (Original) The method of claim 1 further comprising the step of:

incrementing a cumulative load associated with the selected coprocessor.

14. (Original) The method of claim 13 wherein the step of incrementing a cumulative load further comprising the step of:

adding the cost to the cumulative load.

15. (Original) The method of claim 1 further comprising the step of:

decrementing a cumulative load associated with the selected coprocessor.

16. (Original) The method of claim 15 wherein the step of decrementing a cumulative load further comprising the steps of:

subtracting the cost from the cumulative load.

17. (Currently Amended) An apparatus for selecting a coprocessor from a plurality of coprocessors to process a packet ~~of a predetermined size~~, the apparatus comprising:

a memory containing one or more software routines, including a software routine configured to determine the size of the packet, a cost associated with the packet of that size, the cost representing a load associated with processing the packet; and

a processor configured to execute the software routines to determine an anticipated load for each coprocessor in the plurality of coprocessors using the cost and to select the coprocessor from the plurality of coprocessors based on the anticipated load.

18. (Original) The apparatus of claim 17 further comprising:

a data structure;

wherein the cost is determined using information contained in the data structure.

19. (Original) The apparatus of claim 18 wherein the information contained in the data structure includes the cost.

20. (Original) The apparatus of claim 18 wherein the information contained in the data structure includes a rate the coprocessor can process the packet.

21. (Currently Amended) An intermediate device configured to select a coprocessor from a plurality of coprocessors to process a packet ~~of a predetermined size~~, the intermediate device comprising:

means for determining the size of the packet, a cost associated with the packet of that size, the cost representing a load associated with processing the packet;

means for determining an anticipated load for each coprocessor in the plurality of coprocessors using the cost; and

means for selecting the coprocessor based on the anticipated load.

22. (Currently Amended) A computer readable media comprising:

the computer readable media containing computer executable instructions for execution in a processor for the practice of a method for selecting a coprocessor from a plurality of coprocessors to process a packet ~~of a predetermined size~~, the method comprising the steps of:

determining the size of the packet, a cost associated with the packet of that size, the cost representing a load associated with processing the packet;

determining an anticipated load for each coprocessor in the plurality of coprocessors using the cost; and

selecting the coprocessor from the plurality of coprocessors based on the anticipated load.

23. (New) A method for selecting a processor for processing a packet, the method comprising the steps of:

determining the size of the packet;

determining a cost associated with the packet of that size, the cost representing a load associated with processing the packet;

determining an anticipated load for the processor using the cost of the packet if processed by the processor;; and

selecting the processor based on the anticipated load.

24. (New) The method of claim 23 wherein the step of determining a cost.comprises the step of calculating the cost using a rate associated with the processing of the packet; wherein the rate is stored in a lookup table.

25. (New) The method of claim 23 wherein the step of determining a cost further comprises the step of applying the size of the packet to a lookup table containing cost values for determining cost.